

February 18, 2005

Mr. Paul Mitnik, P.E.
MEDEP
Bureau of Land and Water Quality
17 State House Station
Augusta, ME 04333-0017

Subject: Androscoggin River Total Maximum Daily Load
Gulf Island Pond
Livermore Falls Impoundment
Draft – Dec. 2004
City of Berlin, NH Comments

Dear Mr. Mitnik,

Based on the limits proposed in your study, we are concerned about our ability to meet these limits without significant capital investments and a significant increase in our operations and maintenance budget. Based on our review of the draft TMDL (December 2004), we offer the following comments:

1. On page 23, it states that "All of the municipal discharges are an insignificant percentage of the total phosphorus entering the pond." It also appears that all of the municipal plants combined are an insignificant percentage of the BOD₅ and TSS entering the river. Based on the limited contribution of phosphorus, BOD₅ and TSS from the City of Berlin, we question whether the cost burden and growth limitations are justified. If the TMDL is implemented, we believe; that a phased TMDL approach should be undertaken, as discussed on page 4 of the study and that the Berlin WWTF should not receive limits until the final phase provided that there is a need and justification for such limits following the result from the prior phases.
2. On page 23, Table 4 shows that 98.4% of the ortho-phosphorus in the Berlin WWTF effluent is assimilated before it reaches the Gulf Island Pond (GIP) entrance. On page 24, the pie charts show that the Berlin WWTF contributes only 0.3% each of the total phosphorus and ortho-phosphorus, respectively that enters Gulf Island Pond. We **strongly** question whether the 1.6% of ortho-phosphorus that is predicted to make it to GIP is within the error of the mathematical model and therefore, question if it is possible that no ortho-phosphorus from the Berlin WWTF effluent ever makes it to the GIP entrance?

3. On page 25, the 2004 Discharge data on total and ortho-phosphorus is based on a limited set of data collected by the Berlin WWTF staff and we believe that more data collection is required to determine the actual amount of phosphorus in the Berlin WWTF effluent. Further, we wonder whether the 2004 Discharge data was collected over the same time period and with same sampling frequency from all sources? If not, doesn't this call into question the accuracy of the model.
4. If phosphorus limits are imposed, they should only be applicable on a seasonal basis (summer months) as indicated on page 3 of the study.

We appreciate the opportunity to comment. If you have any questions regarding our comments, please contact me at (603) 752-8551.

Sincerely,

James A. Wheeler, P.E.
Director of Public Works/City Engineer

cc: Mr. Pat MacQueen, Berlin City Manager
Mr. Mickey Therriault, Berlin WWTF
Mr. Chris Dwinal, P.E., Wright-Pierce
Mr. Gregg Comstock, P.E., NHDES
Mr. George C. Berlandi, P.E., NHDES